REMARKS/ARGUMENTS

Claims 1-23 and 25-41 remain in the present application, of which claims 1, 7-8, 21-23, 27-28 and 40-41 are independent. Claims 1, 2, 7, 8, 21, 22, 27, 28 and 41 have been amended herein. Applicants respectfully request reconsideration and allowance of claims 1-23 and 25-41.

I. Telephone Interview

Applicants appreciate the time and courtesy extended to applicants' attorney during the telephone interview of August 4, 2004. During the interview, claim 1 has been discussed in reference to U.S. Patent No. 5,701,365 ("Harrington et al."). Further, claim 7 has been discussed in reference to U.S. Patent No. 5,039,983 ("Yoon"). An agreement was reached that Harrington et al. does not disclose "reducing a gray level of the multi-level values by at least one bit" as in claim 1. Applicants' attorney agreed to make a few changes to the claims for clarification, and to file a request for continued examination (RCE).

II. Rejection of Claims 1, 6, 9-10, 12-13, 23, 25-26, 29-30 and 40 under 35 U.S.C. § 103(a)

Claims 1, 6, 9-10, 12-13, 23, 25-26, 29-30 and 40 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,466,206 ("Deering") and further in view of Harrington et al.

Regarding Deering, the Office Action notes that "Deering does not explicitly disclose reducing 'a gray level of the

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multi-level values.'" In rejecting claim 1, however, the Office Action states that "Harrington discloses a method of anti-aliasing in which "1) expanding gray mask M to a bitmap m . . . 6) filtering those pixels in B and returning the filtered pixels to A" (column 3, line 46-55). . . Harrington discloses the resolution of the gray level mask can be increased, filtered, then reduced in order to achieve anti-aliasing effect."

Applicants respectfully submit, however, that the cited sections of Harrington et al. do not disclose "reducing a gray level of the multi-level values by at least one bit," nor is such disclosure found anywhere in Harrington et al. For example, Col. 6, lines 4-9 of Harrington et al. clearly discloses the range of values for M as $0 \leq M \leq 255$ for an 8 bit system. Hence, expanding gray mask M to a bitmap m cannot possibly mean that an additional bit is added to the gray mask M, since M already is an 8-bit quantity (that can express 255) in an 8 bit system.

Further, there is no teaching or suggestion for "reducing a gray level of the multi-level values by at least one bit." In fact, there is no indication in Harrington et al. that any bit is to be added or deleted from the gray mask M. What Harrington teaches is to determine "which subpixels should be permeable and which should be opaque" (Col. 5, lines 66-67) where "the number of subpixels is S then the number p of permeable subpixels would be given as p = MS/N" (Col. 6, lines 11-13), and not "reducing a gray level of the multi-level values by at least one bit."

Claim 1 now recites, in a relevant portion, "<u>reducing a gray level of the multi-level values by at least one bit</u> to

generate reduced multi-level values for use as alpha blend values; and using the reduced multi-level values as the alpha blend values for the graphical element in a subsequent compositing stage." (Emphasis Added) Since Deering and Harrington et al., either individually or together, do not teach or suggest such "reducing a gray level of the multi-level values by at least one bit," applicants submit that claim 1 is not obvious over Deering in view of Harrington et al. Therefore, applicants request that the rejection of claim 1 be withdrawn and that it be allowed.

Since claims 6, 9, 10, 12 and 13 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 6, 9, 10, 12 and 13 be withdrawn and that they be allowed.

Claim 23 recites, in a relevant portion, "[a] graphics display system for displaying a graphical element . . . wherein a gray level of the multi-level values is reduced by at least one bit prior to using them as the alpha blend values." (Emphasis Added) Since Deering and Harrington et al. do not teach or suggest such a graphics display system, applicants submit that claim 23 is not obvious over Deering in view of Harrington et al. Therefore, applicants request that the rejection of claim 23 be withdrawn and that it be allowed.

Since claims 25, 26, 29 and 30 depend, directly or indirectly, from claim 23, they incorporate all the terms and

limitations of claim 23 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 25, 26, 29 and 30 be withdrawn and that they be allowed.

Claim 40 recites, in a relevant portion, "[a] graphics display system for displaying a graphical element comprising . . . a display engine for compositing the graphical element with graphics images using the multi-level values as alpha blend values, wherein <u>a gray level of the multi-level values is reduced by at least one bit prior to using them as the alpha blend values</u>." (<u>Emphasis Added</u>) Since Deering and Harrington et al. do not teach or suggest such a graphics display system, applicants submit that claim 40 is not obvious over Deering in view of Harrington et al. Therefore, applicants request that the rejection of claim 40 be withdrawn and that it be allowed.

III. Rejection of Claims 2-5 under 35 U.S.C. § 103(a)

Claims 2-5 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of Harrington et al., and further in view of (Computer Graphics : Principles and Practice) ("Foley et al.")

Since claims 2-5 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 2-5 be withdrawn and that they be allowed.

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IV. Rejection of Claims 7-8 and 27-28 under 35 U.S.C. § 103(a)

Claims 7-8 and 27-28 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering, and further in view of U.S. Patent No. 5,039,983 ("Yoon").

Claim 7 now recites, in a relevant portion, "[a] method of displaying a graphical element comprising the steps of: . . . reducing a gray level of the multi-level values by at least one bit to generate reduced multi-level values; storing the reduced multi-level values in a display buffer; and using the reduced multi-level values as alpha blend values for the graphical element in a subsequent compositing stage." (Emphasis Added). Since Deering and Yoon (and/or Harrington et al.) do not teach or suggest such a method, applicants submit that claim 7 is not obvious over these references. Therefore, applicants request that the rejection of claim 7 be withdrawn and that it be allowed.

Claim 8 now recites, in a relevant portion, "[a] method of displaying a graphical element comprising the steps of: filtering the graphical element with a low pass filter to generate a multi-level value per pixel at an intended final display resolution; reducing a gray level of the multi-level values by at least one bit to generate reduced multi-level values. (Emphasis Added). Since Deering and Yoon (and/or Harrington et al.) do not teach or suggest such a method, applicants submit that claim 8 is not obvious over these references. Therefore, applicants request that the rejection of claim 8 be withdrawn and that it be allowed.

Claims 27 and 28 each recite, in a relevant portion, "[a] graphics display system for displaying a graphical element . . . wherein <u>a gray level of the multi-level values is reduced by at least one bit prior to using them as the alpha blend values</u>." (<u>Emphasis Added</u>) Since Deering and Yoon (and/or Harrington et al.) do not teach or suggest such a graphics display system, applicants submit that claims 27 and 28 are not obvious over these references. Therefore, applicants request that the rejection of claims 27 and 28 be withdrawn and that they be allowed.

V. Rejection of Claims 17-18 and 32-39 under 35 U.S.C. § 103(a)

Claims 17-18 and 32-39 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of Harrington et al., and further in view of U.S. Patent No. 6,133,901 ("Law").

Since claims 17-18 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 17-18 be withdrawn and that they be allowed.

Since claims 32-39 depend, directly or indirectly, from claim 23, they incorporate all the terms and limitations of claim 23 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 32-39 be withdrawn and that they be allowed.

VI. Rejection of Claim 21 under 35 U.S.C. § 103(a)

Claim 21 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of Harrington et al., and further in view of U.S. Patent No. 6,466,210 ("Carlsen et al.").

Claim 21 now recites, in a relevant portion, "A method of displaying a graphical element comprising the steps of: filtering the graphical element with a low pass filter to generate a multi-level value per pixel at an intended final display resolution; reducing a gray level of the multi-level values by at least one bit to generate reduced multi-level values for use as alpha blend values."

As discussed above in reference to claim 1, Deering and Harrington et al. do not teach or suggest such a method including "reducing a gray level of the multi-level values by at least one bit." Further, Carlsen et al. "discloses a method of blending multi-layer image where blending values are used to blend images" according to the Office Action, but not "reducing a gray level of the multi-level values by at least one bit." Therefore, applicants request that the rejection of claim 21 be withdrawn and that it be allowed.

VII. Rejection of Claims 22 and 41 under 35 U.S.C. § 103(a)

Claims 22 and 41 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering in view of Carlsen et al., and further in view of U.S. Patent No. 6,057,850 ("Kirchury.").

Claim 22 now recites, in a relevant portion, "[a] method of displaying a graphical element comprising the steps of: filtering the graphical element with a low pass filter to generate a multi-level value per pixel at an intended final display resolution; reducing a gray level of the multi-level values by at least one bit to generate reduced multi-level values." (Emphasis Added) As discussed above in reference to claim 22, Deering, Harrington et al. and Carlsen et al. do not teach or suggest such a method. Further, Kirchury, "discloses opacity of the graphical element may be varied by specifying the alpha value of the display buffer" according to the Office Action, and not "reducing a gray level of the multi-level values by at least one bit." Therefore, applicants submit that claim 22 is patentable of the art of record, and request that the rejection of claim 22 be withdrawn and that it be allowed.

Claim 41 now recites, in a relevant portion, "[a] graphics display system for displaying a graphical element . . . wherein a gray level of the multi-level values is reduced by at least one bit prior to using them as the alpha blend values." (Emphasis Added). Since none of the cited references teach or suggest, either individually or in any combination, such a graphics display system, applicants request that the rejection of claim 41 be withdrawn and that they be allowed.

VIII. Rejection of Claims 11, 14-16, 19-20 and 31 under 35 U.S.C. § 103(a)

Claims 11, 14-16, 19-20 and 31 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Deering.

Since claims 11, 14-16 and 19-20 depend from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 11, 14-16 and 19-20 be withdrawn and that they be allowed.

Since claim 31 depends from claim 23, it incorporates all the terms and limitations of claim 23 in addition to other limitations, which together further patentably distinguish it over the cited references. Therefore, applicants request that the rejection of claim 31 be withdrawn and that it be allowed.

In view of the foregoing amendments and arguments, applicants respectfully request an early issuance of a patent with claims 1-23 and 25-41. If there are any remaining issues that can be addressed over the telephone, the Examiner is invited to call applicants' attorney at the number listed below.

Respectfully submitted,

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